

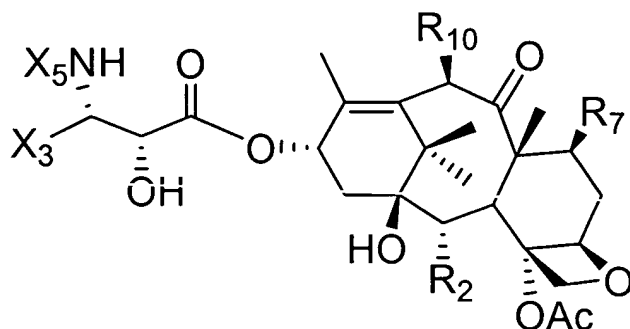
Express Mail Label No. EV 432654314 US

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

### Listing of Claims:

1. **(original)** A method of inhibiting tumor growth in a mammal, said method comprising administering a therapeutically effective amount of a composition comprising at least one pharmaceutically acceptable carrier and a taxane having the formula



wherein

X<sub>3</sub> is 2-thienyl, 3-thienyl, 2-furyl, 3-furyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, isobutenyl, isopropyl, cyclopropyl, cyclobutyl or cyclopentyl;

X<sub>5</sub> is -COX<sub>10</sub> and X<sub>10</sub> is isobutenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, butenyl, isobutyl or n-propyl or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is ethyl, n-propyl, isopropyl, or isobutyl;

R<sub>2</sub> is benzoyloxy;

R<sub>7</sub> is R<sub>7a</sub>OCOO-;

R<sub>10</sub> is hydroxy; and

R<sub>7a</sub> is methyl or ethyl.

Express Mail Label No. EV 432654314 US

2. **(original)** The method of claim 1 wherein  $X_3$  is 2-thienyl, 3-thienyl, 2-furyl, 3-furyl, isobutenyl or cyclopropyl and  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is isobutenyl, 2-furyl or 2-thienyl or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is isopropyl or isobutyl.

3. **(original)** The method of claim 1 wherein  $X_3$  is thienyl.

4. **(original)** The method of claim 1 wherein  $X_3$  is 2-thienyl.

5. **(original)** The method of claim 1 wherein  $X_3$  is furyl.

6. **(original)** The method of claim 1 wherein  $X_3$  is 2-furyl.

7. **(original)** The method of claim 1 wherein  $R_{7a}$  is methyl.

8. **(original)** The method of claim 1 wherein  $R_{7a}$  is ethyl.

9. **(original)** The method of claim 1 wherein  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is isopropyl.

10. **(original)** The method of claim 7 wherein  $X_3$  is thienyl.

11. **(original)** The method of claim 7 wherein  $X_3$  is 2-thienyl.

12. **(original)** The method of claim 7 wherein  $X_3$  is furyl.

13. **(original)** The method of claim 7 wherein  $X_3$  is 2-furyl.

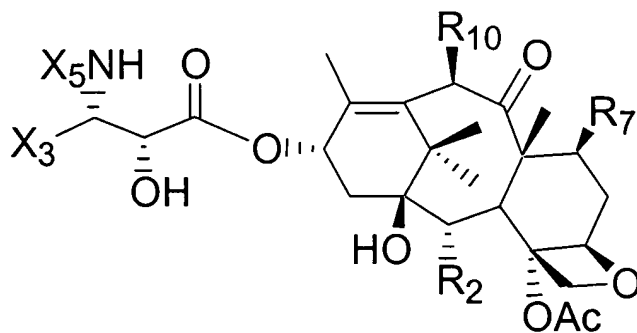
14. **(original)** The method of claim 8 wherein  $X_3$  is thienyl.

15. **(original)** The method of claim 8 wherein  $X_3$  is 2-thienyl.

16. **(original)** The method of claim 8 wherein  $X_3$  is furyl.

Express Mail Label No. EV 432654314 US

17. **(original)** The method of claim 8 wherein  $X_3$  is 2-furyl.
18. **(original)** The method of claim 9 wherein  $X_3$  is thienyl.
19. **(original)** The method of claim 9 wherein  $X_3$  is 2-thienyl.
20. **(original)** The method of claim 9 wherein  $X_3$  is furyl.
21. **(original)** The method of claim 9 wherein  $X_3$  is 2-furyl.
22. **(original)** A method of inhibiting tumor growth in a mammal, said method comprising administering a therapeutically effective amount of a composition comprising at least one pharmaceutically acceptable carrier and a taxane having the formula

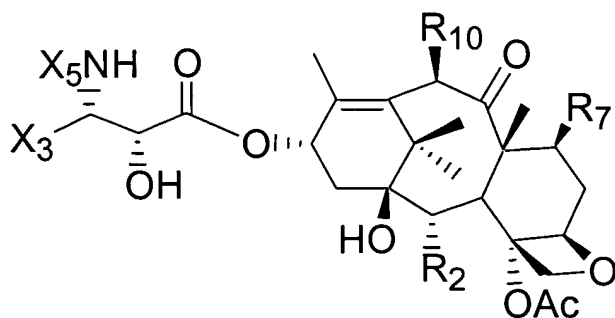


wherein

- $X_3$  is 2-furyl, 3-furyl, 2-thienyl or 3-thienyl;  
 $X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is trans-propenyl;  
 $R_2$  is benzoyloxy;  
 $R_7$  is  $R_{7a}\text{OCOO}-$ ;  
 $R_{10}$  is hydroxy; and  
 $R_{7a}$  is methyl or ethyl.

Express Mail Label No. EV 432654314 US

23. **(original)** The method of claim 22 wherein  $R_{7a}$  is methyl.
24. **(original)** The method of claim 22 wherein  $R_{7a}$  is ethyl.
25. **(original)** The method of claim 23 wherein  $X_3$  is thienyl.
26. **(original)** The method of claim 23 wherein  $X_3$  is 2-thienyl.
27. **(original)** The method of claim 23 wherein  $X_3$  is furyl.
28. **(original)** The method of claim 23 wherein  $X_3$  is 2-furyl.
29. **(original)** The method of claim 24 wherein  $X_3$  is thienyl.
30. **(original)** The method of claim 24 wherein  $X_3$  is 2-thienyl.
31. **(original)** The method of claim 24 wherein  $X_3$  is furyl.
32. **(original)** The method of claim 24 wherein  $X_3$  is 2-furyl.
33. **(original)** A method of inhibiting tumor growth in a mammal, said method comprising administering a therapeutically effective amount of a composition comprising at least one pharmaceutically acceptable carrier and a taxane having the formula



Express Mail Label No. EV 432654314 US

wherein

$X_3$  is 2-furyl;

$X_5$  is  $-\text{COX}_{10}$  and  $X_{10}$  is isobutenyl or  $X_5$  is  $-\text{COOX}_{10}$  and  $X_{10}$  is t-butyl or t-amyl;

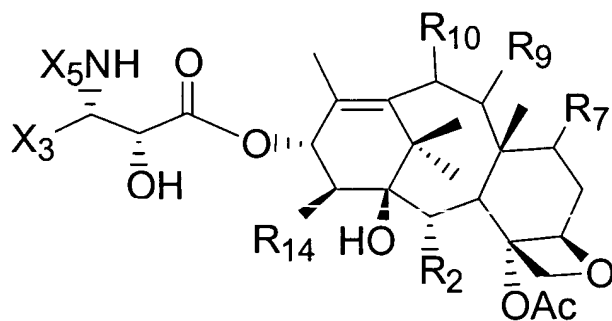
$R_2$  is benzoyloxy;

$R_7$  is  $R_{7a}\text{OCOO}-$ ;

$R_{10}$  is hydroxy; and

$R_{7a}$  is benzyl.

34. **(original)** A method for preparing a pharmaceutical composition comprising mixing at least one nonaqueous, pharmaceutically acceptable solvent and a taxane having the formula



wherein

$R_2$  is acyloxy;

$R_7$  is carbonate;

$R_9$  is keto, hydroxy, or acyloxy;

$R_{10}$  is hydroxy;

$R_{14}$  is hydrido or hydroxy;

$X_3$  is substituted or unsubstituted alkyl, alkenyl, alkynyl or heterocyclo;

$X_5$  is  $-\text{COX}_{10}$ ,  $-\text{COOX}_{10}$ , or  $-\text{CONHX}_{10}$ ;

$X_{10}$  is hydrocarbyl, substituted hydrocarbyl, or heterocyclo; and

Ac is acetyl.

Claims 35-45 **(cancelled)**.

Express Mail Label No. EV 432654314 US

46. **(new)** The method of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

47. **(new)** The method of claim 34 wherein  $R_7$  is  $R_{7a}OCOO^-$  and  $R_{7a}$  is methyl or ethyl.

48. **(new)** The method of claim 34 wherein  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

49. **(new)** The method of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl,  $R_7$  is  $R_{7a}OCOO^-$  and  $R_{7a}$  is methyl or ethyl.

50. **(new)** The method of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl,  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

51. **(new)** The method of claim 34 wherein  $R_7$  is  $R_{7a}OCOO^-$  and  $R_{7a}$  is methyl or ethyl,  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl, or  $X_5$  is  $-COOX_{10}$  and  $X_{10}$  is substituted or unsubstituted  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl.

52. **(new)** The method of claim 34 wherein  $X_3$  is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl,  $C_1 - C_8$  alkyl,  $C_2 - C_8$  alkenyl, or  $C_2 - C_8$  alkynyl,  $R_7$  is  $R_{7a}OCOO^-$ ,  $R_{7a}$  is methyl or ethyl,  $X_5$  is  $-COX_{10}$  and  $X_{10}$  is substituted or unsubstituted

Express Mail Label No. EV 432654314 US

phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl, or X<sub>5</sub> is -COOX<sub>10</sub> and X<sub>10</sub> is substituted or unsubstituted C<sub>1</sub> - C<sub>8</sub> alkyl, C<sub>2</sub> - C<sub>8</sub> alkenyl, or C<sub>2</sub> - C<sub>8</sub> alkynyl.

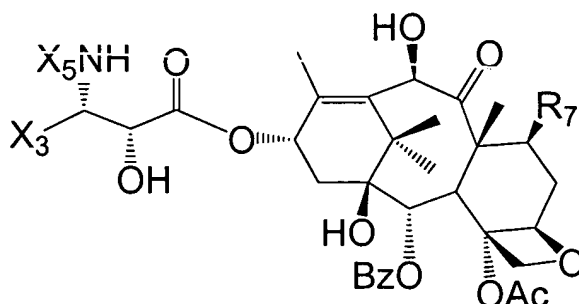
53. **(new)** The method of claim 34 wherein X<sub>3</sub> is thienyl.

54. **(new)** The method of claim 34 wherein X<sub>3</sub> is 2-thienyl.

55. **(new)** The method of claim 34 wherein X<sub>3</sub> is furyl.

56. **(new)** The method of claim 34 wherein X<sub>3</sub> is 2-furyl.

57. **(new)** A taxane having the formula



wherein R<sub>2</sub>, R<sub>7</sub>, X<sub>5</sub>, X<sub>10</sub> and X<sub>3</sub>, in combination, selected from one of combinations 1-45 appearing in the following table:

Combination No.	R <sub>7</sub>	R <sub>7a</sub>	X <sub>5</sub>	X <sub>10</sub>	X <sub>3</sub>
1	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isopropyl	2-thienyl
2	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	2-thienyl
3	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	2-thienyl
4	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	2-thienyl
5	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	3-thienyl

Express Mail Label No. EV 432654314 US

Combination No.	R <sub>7</sub>	R <sub>7a</sub>	X <sub>5</sub>	X <sub>10</sub>	X <sub>3</sub>
6	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	3-thienyl
7	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isobutyl	3-thienyl
8	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	3-thienyl
9	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	2-furyl
10	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	2-furyl
11	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isobutyl	2-furyl
12	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	2-furyl
13	R <sub>7a</sub> OCOO-	benzyl	-COOX <sub>10</sub>	t-butyl	2-furyl
14	R <sub>7a</sub> OCOO-	benzyl	-COOX <sub>10</sub>	t-amyl	2-furyl
15	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	3-furyl
16	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	3-furyl
17	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isobutyl	3-furyl
18	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	3-furyl
19	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	isobutenyl
20	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	isobutenyl
21	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isobutyl	isobutenyl
22	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	isobutenyl
23	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	t-butyl	cyclopropyl
24	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	t-butyl	cyclopropyl
25	R <sub>7a</sub> OCOO-	methyl	-COOX <sub>10</sub>	isobutyl	cyclopropyl
26	R <sub>7a</sub> OCOO-	ethyl	-COOX <sub>10</sub>	isobutyl	cyclopropyl
27	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	2-furyl	2-thienyl
28	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	2-furyl	2-thienyl
29	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	2-thienyl	2-thienyl
30	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	2-thienyl	2-thienyl
31	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	trans-propenyl	3-thienyl
32	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	trans-propenyl	3-thienyl



Express Mail Label No. EV 432654314 US

Combination No.	R <sub>7</sub>	R <sub>7a</sub>	X <sub>5</sub>	X <sub>10</sub>	X <sub>3</sub>
33	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	trans-propenyl	2-furyl
34	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	trans-propenyl	2-furyl
35	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	phenyl	2-thienyl
36	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	phenyl	2-thienyl
37	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	trans-propenyl	2-thienyl
38	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	trans-propenyl	2-thienyl
39	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	isobutenyl	2-thienyl
40	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	isobutenyl	2-thienyl
41	R <sub>7a</sub> OCOO-	methyl	-COX <sub>10</sub>	trans-propenyl	3-furyl
42	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	trans-propenyl	3-furyl
43	R <sub>7a</sub> OCOO-	benzyl	-COX <sub>10</sub>	trans-propenyl	2-thienyl
44	R <sub>7a</sub> OCOO-	ethyl	-COX <sub>10</sub>	isobutenyl	2-furyl
45	R <sub>7a</sub> OCOO-	benzyl	-COX <sub>10</sub>	isobutenyl	2-furyl

58. **(new)** The taxane of claim 57 wherein R<sub>2</sub> is benzoyloxy; R<sub>7</sub> is R<sub>7a</sub>OCOO-; X<sub>5</sub> is -COOX<sub>10</sub>; X<sub>10</sub> is isopropyl or isobutyl; X<sub>3</sub> is 2-thienyl; and R<sub>7a</sub> is methyl or ethyl.

59. **(new)** The taxane of claim 57 wherein R<sub>2</sub> is benzoyloxy; R<sub>7</sub> is R<sub>7a</sub>OCOO-; X<sub>5</sub> is -COOX<sub>10</sub>; X<sub>10</sub> is t-butyl; X<sub>3</sub> is 2-thienyl, and R<sub>7a</sub> is methyl or ethyl.

60. **(new)** The taxane of claim 57 wherein R<sub>2</sub> is benzoyloxy; R<sub>7</sub> is R<sub>7a</sub>OCOO-; X<sub>5</sub> is -COOX<sub>10</sub>; X<sub>10</sub> is t-butyl; X<sub>3</sub> is 3-thienyl, and R<sub>7a</sub> is methyl or ethyl.

61. **(new)** The taxane of claim 57 wherein R<sub>2</sub> is benzoyloxy; R<sub>7</sub> is R<sub>7a</sub>OCOO-; X<sub>5</sub> is -COOX<sub>10</sub>; X<sub>10</sub> is isobutyl; X<sub>3</sub> is 3-thienyl, and R<sub>7a</sub> is methyl or ethyl.

62. **(new)** The taxane of claim 57 wherein R<sub>2</sub> is benzoyloxy; R<sub>7</sub> is R<sub>7a</sub>OCOO-; X<sub>5</sub> is -COOX<sub>10</sub>; X<sub>10</sub> is t-butyl; X<sub>3</sub> is 2-furyl; and R<sub>7a</sub> is methyl or ethyl.

Express Mail Label No. EV 432654314 US

63. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is isobutyl;  $X_3$  is 2-furyl; and  $R_{7a}$  is methyl or ethyl.

64. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is t-butyl or tert-amyl;  $X_3$  is 2-furyl; and  $R_{7a}$  is benzyl.

65. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is t-butyl;  $X_3$  is 3-furyl; and  $R_{7a}$  is methyl or ethyl.

66. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is isobutyl;  $X_3$  is 3-furyl; and  $R_{7a}$  is methyl or ethyl.

67. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is t-butyl;  $X_3$  is isobutenyl; and  $R_{7a}$  is methyl or ethyl.

68. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is isobutyl;  $X_3$  is isobutenyl; and  $R_{7a}$  is methyl or ethyl.

69. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is t-butyl;  $X_3$  is cyclopropyl; and  $R_{7a}$  is methyl or ethyl.

70. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COOX_{10}$ ;  $X_{10}$  is isobutyl;  $X_3$  is cyclopropyl; and  $R_{7a}$  is methyl or ethyl.

71. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is 2-furyl or 2-thienyl;  $X_3$  is 2-thienyl; and  $R_{7a}$  is methyl or ethyl.

72. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCOO^-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is trans-propenyl;  $X_3$  is 3-thienyl; and  $R_{7a}$  is methyl or ethyl.

Express Mail Label No. EV 432654314 US

73. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCO-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is trans-propenyl;  $X_3$  is 2-furyl; and  $R_{7a}$  is methyl or ethyl.

74. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCO-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is phenyl, trans-propenyl, or isobutenyl;  $X_3$  is 2-thienyl; and  $R_{7a}$  is methyl or ethyl.

75. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCO-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is trans-propenyl;  $X_3$  is 3-furyl; and  $R_{7a}$  is methyl or ethyl.

76. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCO-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is trans-propenyl;  $X_3$  is 2-thienyl; and  $R_{7a}$  is benzyl.

77. **(new)** The taxane of claim 57 wherein  $R_2$  is benzoyloxy;  $R_7$  is  $R_{7a}OCO-$ ;  $X_5$  is  $-COX_{10}$ ;  $X_{10}$  is isobutenyl;  $X_3$  is 2-furyl; and  $R_{7a}$  is ethyl or benzyl.